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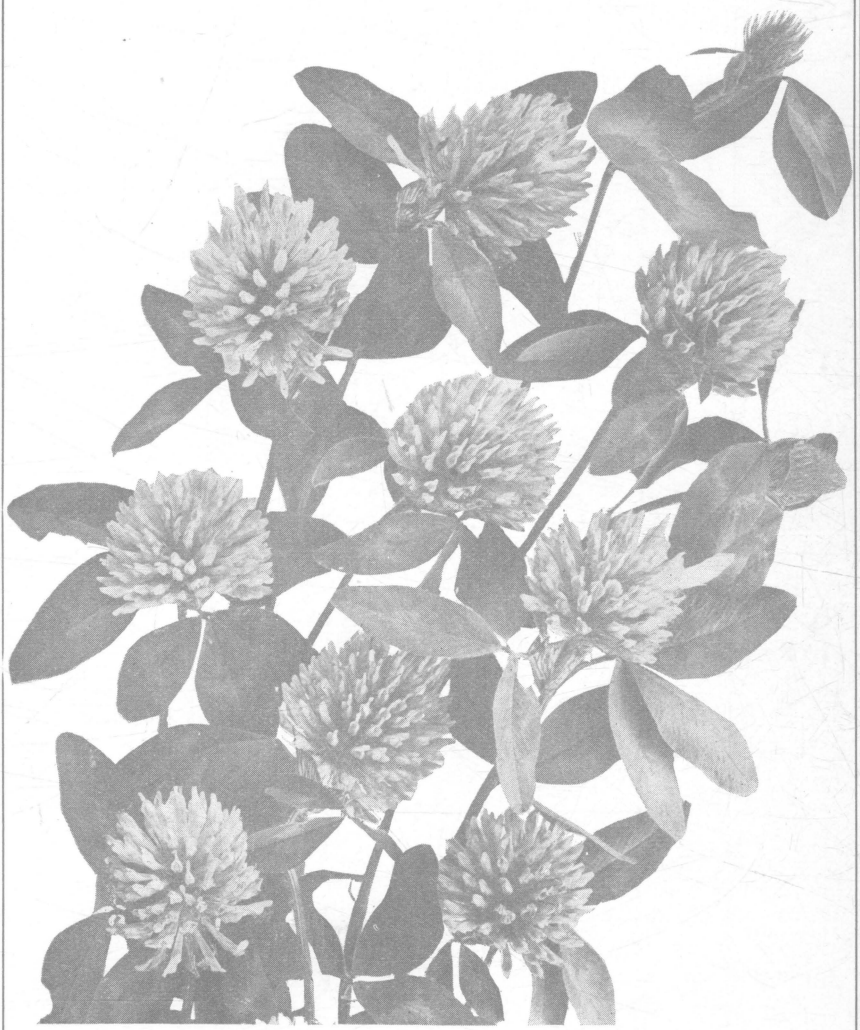

RED CLOVER

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RED CLOVER

Red Clover a Well Known Crop.—There is no crop that is more familiar to Ohio farmers than red clover, and yet it is probably true that within recent years, there are more difficulties to overcome in order to grow the crop successfully than is the case with any other of our common farm crops.

These difficulties are due largely to the attacks from various insects and fungus diseases, and to unfavorable soil conditions.

Reasons for Growing Red Clover.—There are several reasons why red clover should be much more extensively grown in Ohio than it is:

(1) The acreage of clover should be greatly increased because it is a legume and hence a soil improver both chemically and physically.

(2) Red clover is well adapted to the climatic conditions that prevail thruout the state. This is plainly evident from the fact that Ohio is one of the important clover seed producing states.

(3) Clover should be grown extensively in Ohio, since it fits into almost any of the crop rotation systems practiced by Ohio farmers. Thruout the southern part of the state the common rotation is corn, wheat, and clover. In northern Ohio the most common system is corn, oats, wheat, clover or perhaps corn, oats, and clover. Regardless of what the rotation is, clover fits in nicely, as it may be sown equally well with wheat, or oats, as a nurse crop.

(4) Perhaps another reason why Ohio farmers should grow red clover quite extensively is the fact that nearly all understand how to handle the crop, so that no experimental work need be undertaken.

A Good Hay Crop.—Red clover ranks high as a hay crop. It is very common to secure 2 tons of hay per acre, and often 3 tons are secured from one cutting. Red clover hay has a high feeding value, almost if not equal to alfalfa hay. Formerly there was quite a difference in the price of timothy and clover hay, but of late years the prices of these two hays are quite close together.

In some seasons the new seeding of clover makes quite a luxuriant growth in late summer, and in such cases it is perhaps advisable to clip it, making a hay crop of this cutting.

Such a practice is, however, not the usual thing. The new seeding should not be clipped in the fall unless it has made an unusual growth.

A Splendid Pasture Crop.—Red clover is a splendid pasture crop. It is quite a common practice to seed clover in the wheat early in spring and after removing the wheat from the field early

in July to have the same field available for pasture during the latter part of the summer. Young clover such as this should not be pastured too closely, however.

A Profitable Seed Crop.—After securing the regular cutting of clover hay the crop makes a second growth, and if the season is a normal one the seed crop develops in this second crop. More attention should be given by Ohio farmers to growing clover seed. Unless attacked by the clover midge, or other insects, or else injured by extremely dry weather, one may expect to harvest from 1 to 2 bushels of clover seed per acre.

More Clover Seed Should be Grown.—During the past few years clover seed has been very scarce, and hence the price is quite high, so that a crop of 1 bushel or more per acre is quite worth while. Ordinarily the crop of clover seed may be materially increased by sacrificing to some extent the hay crop. This may be accomplished by cutting the hay crop somewhat earlier than the time for maximum yield of hay, thus allowing the second growth of clover to come on earlier, which will quite likely allow it to mature seed before the clover midge gets in its work.

Perhaps another method that might be worth considering, particularly when one is more interested in securing a crop of seed than a hay crop, would be to pasture the clover crop for a while in spring, then take out the stock, clip the field and allow the second crop to come on for seed. The seed crop would then have a much better chance than if a hay crop were removed.

When and How to Sow Clover Seed.—Clover is usually seeded in the spring with wheat or oats. Thruout northwestern Ohio it is commonly seeded with the oats crop and seeded at the same time that the oats are seeded. Where the corn, wheat, and clover rotation is followed the clover seed is sown broadcast on the wheat fields in the spring.

When sown in this manner it should be sown early so there may be plenty of opportunity for the seed to be covered by freezing and thawing weather.

A method that usually gives good results is to sow the clover seed with a disk drill or a regular disk seeder. When seeding in this manner it is necessary to delay seeding until the ground is dry enough to bear up the weight of a team without undue tramping of the soil.

The advantage of seeding with the drill is that the seed is covered and it nearly all comes up, whereas if the seed is merely scattered over the ground, it is likely that a great deal never germinates at all, or perishes soon after germinating. It would seem

that it would be good practice to sow clover seed quite early in spring, so that there will be ample opportunity for the frost to be effective in covering the seed, or else wait until spring is well opened up and soil is in good condition to go on with team and drill the seed in. Clover seed ordinarily should not be sown with a broadcast seeder at a halfway period.

Amount of Seed to Sow Per Acre.—When sowing clover seed with the broadcast seeder from 7 to 8 pounds per acre are usually sown. If sown with the drill so that the seeds are covered, it is generally found satisfactory to sow not more than from 5 to 6 pounds per acre.

Of recent years a good deal of trouble is being experienced, particularly in certain sections of the state, with clover diseases and insect pests.

Why Red Clover Fails.—In Timely Soil Topics for November, 1918, Prof. Firman E. Bear makes the following statement: "It is well to keep in mind that red clover is not a crop which can be used to advantage on poor soils. Red clover will not grow on worn out soils. The soil must be supplied with plenty of available plant food for satisfactory crops of clover in just the same way, as for large yields of corn, oats, and wheat. The use of acid phosphate on the wheat it not only for the benefit of the wheat, but is especially necessary for the clover crop following." It should also be kept in mind that not only will acid phosphate have a decided effect in increasing yield of hay, but it will aid materially in increasing seed production.

Disease-Resistant Strains.—Anthracnose is a common disease of red clover, particularly in the northwestern part of Ohio. It may be possible to develop strains that are resistant to this disease. Considerable experimental work is now being conducted along this line. The custom is rather general to place the blame for clover failures on insects and various fungous diseases, when perhaps it is entirely due to the condition of the soil. Red clover does not thrive in a wet, acid soil. Thruout eastern Ohio it is usually necessary to make liberal applications of ground limestone before red clover can be grown successfully, and in other sections of the state limestone has a very beneficial effect upon red clover, often enabling it to overcome the attacks of diseases and insects that otherwise would have killed it out.

The Ohio State University, Cooperating with the United States Department of Agriculture, Agricultural College Extension Service, H C Ramsower, Director, Columbus, Ohio.
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